Creating the Resilience Community in GeoPlatform

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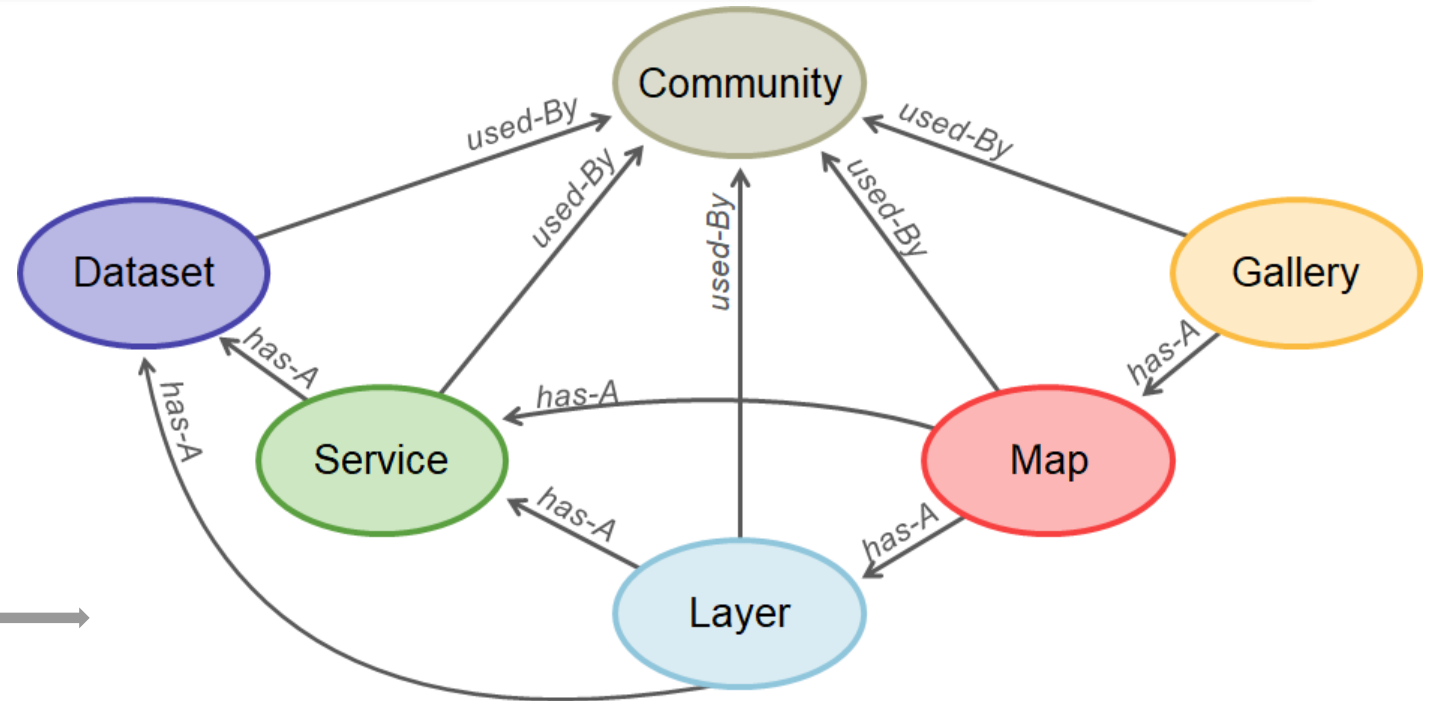Joint HIFLD Feedback Session/ GeoPlatform Community Meeting

- 29 October 2019 -

GeoPlatform Community Object

The GeoPlatform.gov portfolio model provides support for multiple geospatial objects including datasets, services, layers, maps and galleries.
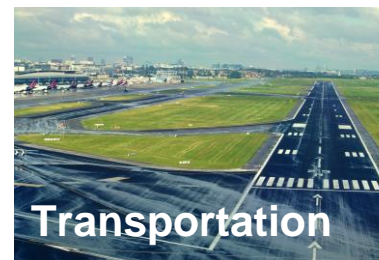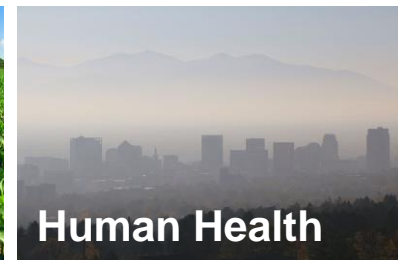
- Related objects can be linked in GeoPlatform

GeoPlatform also supports **communities; designed to be a "multi-agency workspace for sharing data and information about topical or event based occurrences of national and regional significance".**

- This presentation will describe the process of creating the Resilience Community in GeoPlatform and subsequent best practices/ lessons learned.

Climate Data Initiative (CDI)

- Included the launch of a climate-focused section of Data.gov (data.gov/climate) on March 19, 2014

- Data collection composed of approximately 700 freely available federal datasets curated by subject matter experts into 9 thematic areas

- NASA was appointed as the lead agency in developing the Climate Data Initiative web presence

- NASA continues to maintain the collection and provide periodic updates as needed

  – See Ramachandran et al. 2016 in *Computers & Geosciences*

DATA.GOV

Arctic

Coastal Flooding

Ecosystem Vulnerability

Energy Infrastructure

Food Resilience

Human Health

Transportation

Tribal Nations

Water

Beyond Data.gov

Data are increasingly served through a variety of web services (e.g., Esri REST, OGC, OPeNDAP)

>>> Hundreds of services were curated into the CDI collection, but Data.gov does not highlight services as a concept (hidden in metadata)

>>> In order to expose the CDI collection to a new and growing user community, IMPACT has partnered with GeoPlatform to develop the Resilience Community.

- The Resilience community serves as an interactive, topically-focused web portal that further promotes and shares **CDI web content, and provides access to CDI datasets, services, maps, and other tools relevant to global resilience and change**.

Building a Community in GeoPlatform

Step 1:

Request to create a community:

https://www.geoplatform.gov/resources/communities/

REQUEST A COMMUNITY

If you need a place to collaborate between multiple agencies on a topic or even of interest, then use the form below to request a GeoPlatform Community Space.

Community Request Form

Building a Community in GeoPlatform

Step 2:
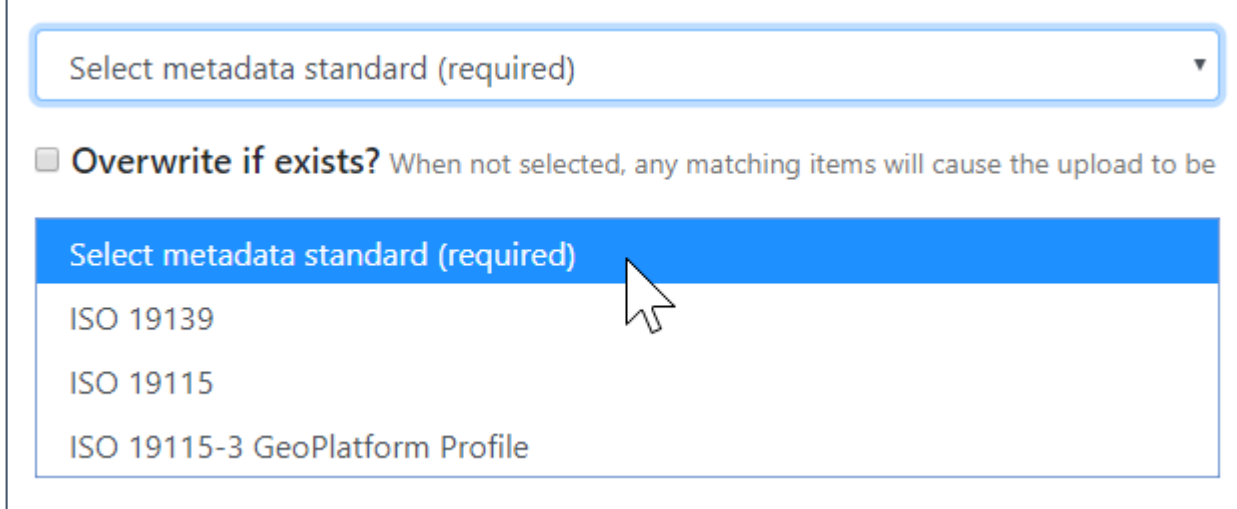
Identify objects to include in your community (datasets, services, layers, etc.)

- Bring objects into your GeoPlatform Community

    - Manually using Object Editor

    - Via an automated harvest source set up in collaboration with GeoPlatform

- Link related objects using Object Editor (e.g. identify related services, layers, maps etc.)
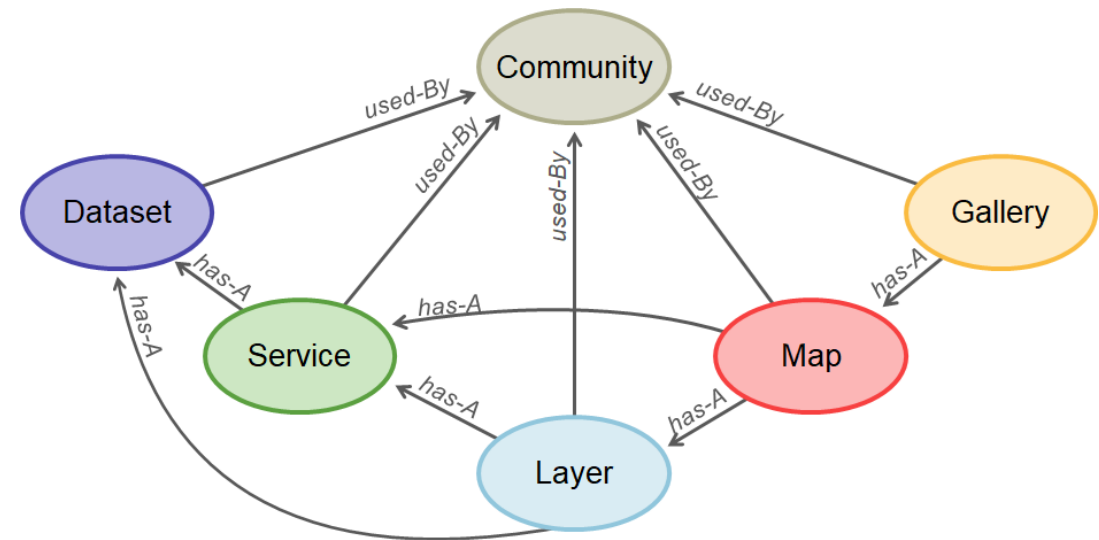
Resilience Community Objects

- ISO 19139 metadata records for each CDI dataset were imported from Data.gov into GeoPlatform.

- Resilience Community curators used GeoPlatform's portfolio curation tool, **Object Editor**, to establish a network of linked portfolio objects (datasets, services, layers, etc.)

- The most critical curatorial step was the tagging of objects with the CDI theme tags.
  - The tags are registered in the GeoPlatform as SKOS concepts and aid users in filtering the collection.

Select metadata standard (required)

☐ **Overwrite if exists?** When not selected, any matching items will cause the upload to be

Select metadata standard (required)
ISO 19139
ISO 19115
ISO 19115-3 GeoPlatform Profile

Ad hoc imports of ISO metadata documents

GeoPlatform.gov

Data.gov

ISO

Object Editor

Curators enrich metadata and create a network of linked portfolio objects
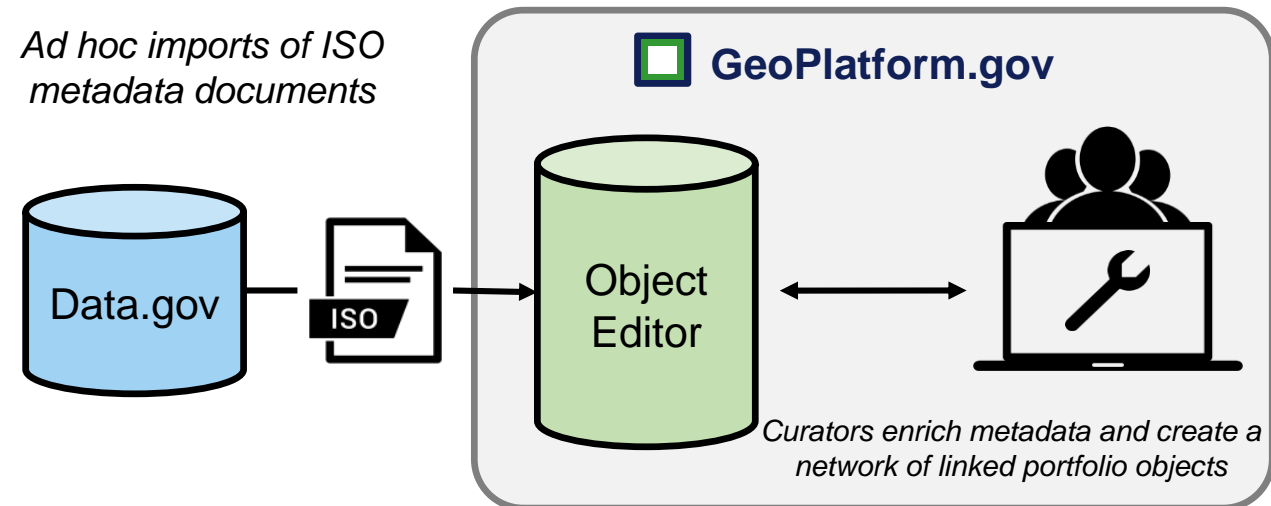
Objects can be tagged with other keywords and taxonomies, such as the Global Change Master Directory (GCMD), increasing discoverability among different user topics.

GeoPlatform's unique applications, such as the GeoPlatform Map Viewer, allows users to create stunning maps and tools to share amongst their colleagues using Resilience community data.

RESILIENCE PORTFOLIO
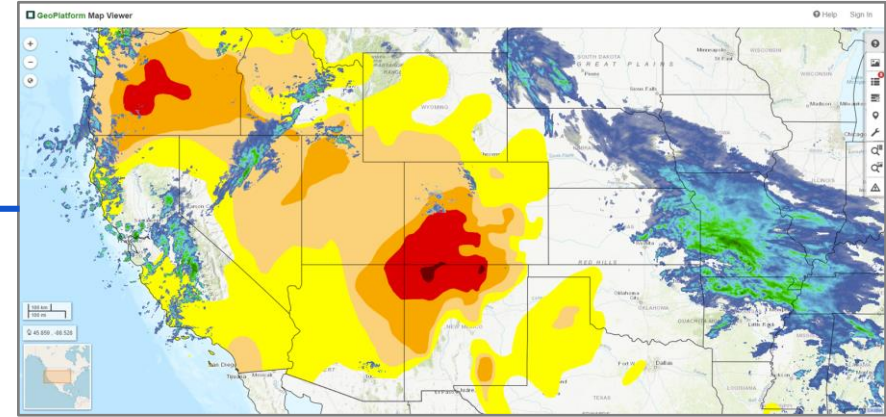
Figure 4: Drought and rainfall conditions across the conterminous United States.

35 datasets in the Resilience community overlap with the National Geospatial Data Asset (NGDA) Portfolio as part of the FGDC.

'Related Resources' for each object can be curated to include relevant assets, including similar datasets.

RELATED RESOURCES (3) ∧

Global Annual PM2.5 Grids from MODIS, MISR and SeaWiFS Aerosol Optical Depth
Detailed user's guide and documentation regarding the Global Annual PM2.5 Grids from MODI
Role: information

Dataset Landing Page ⬀
The unique landing page for the dataset Global Annual Average PM2.5 Grids from MODIS a (SEDAC).
Role: information

Socioeconomic Data and Applications Center (SEDAC) ⬀
Homepage for the SEDAC NASA Data Center.
Role: information

474 Datasets   **152** Services   **1065** Layers   **14** Maps   **2** Galleries

Resilience Community Website

Step 3:

Build a community web presence using WordPress
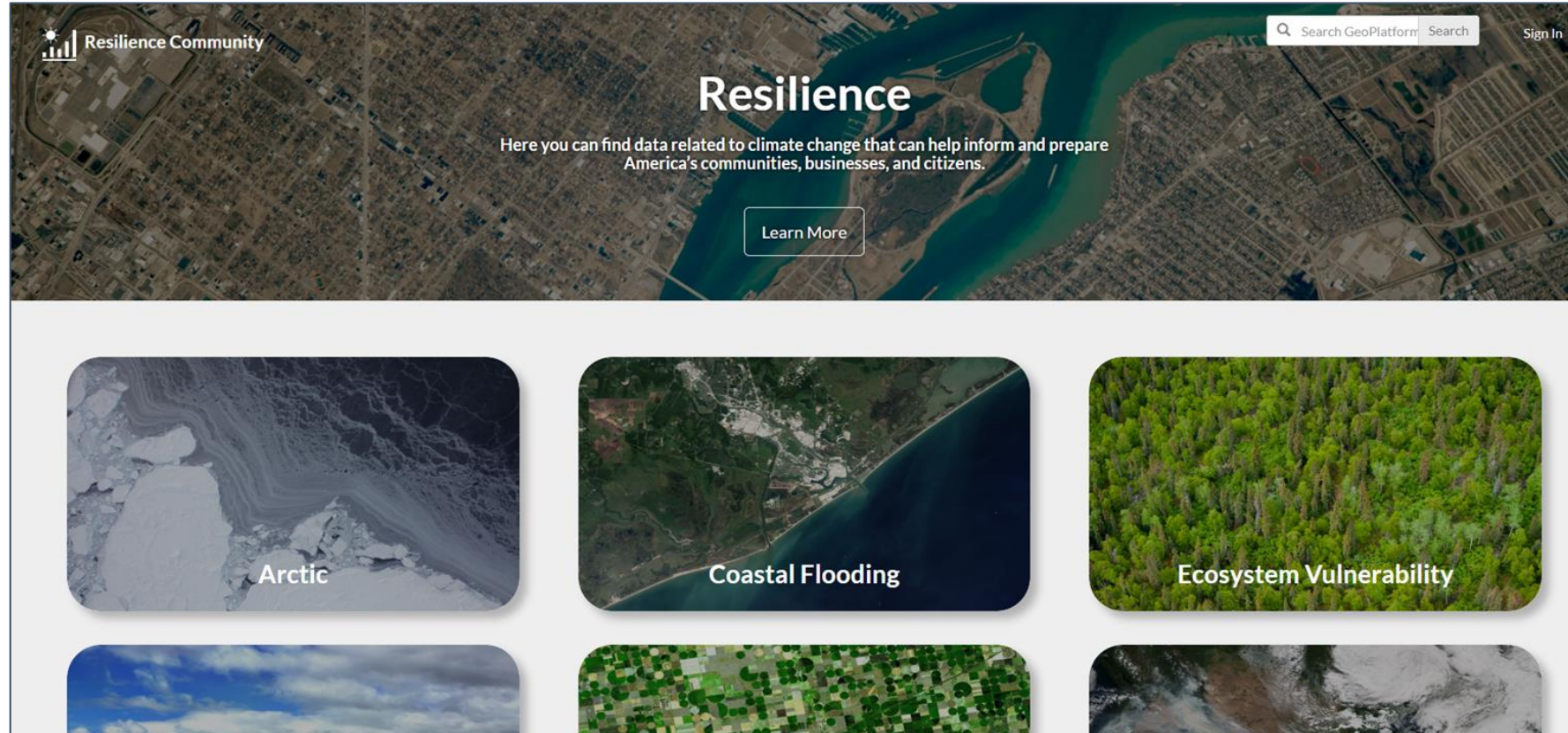
Resilience Community Website: Homepage
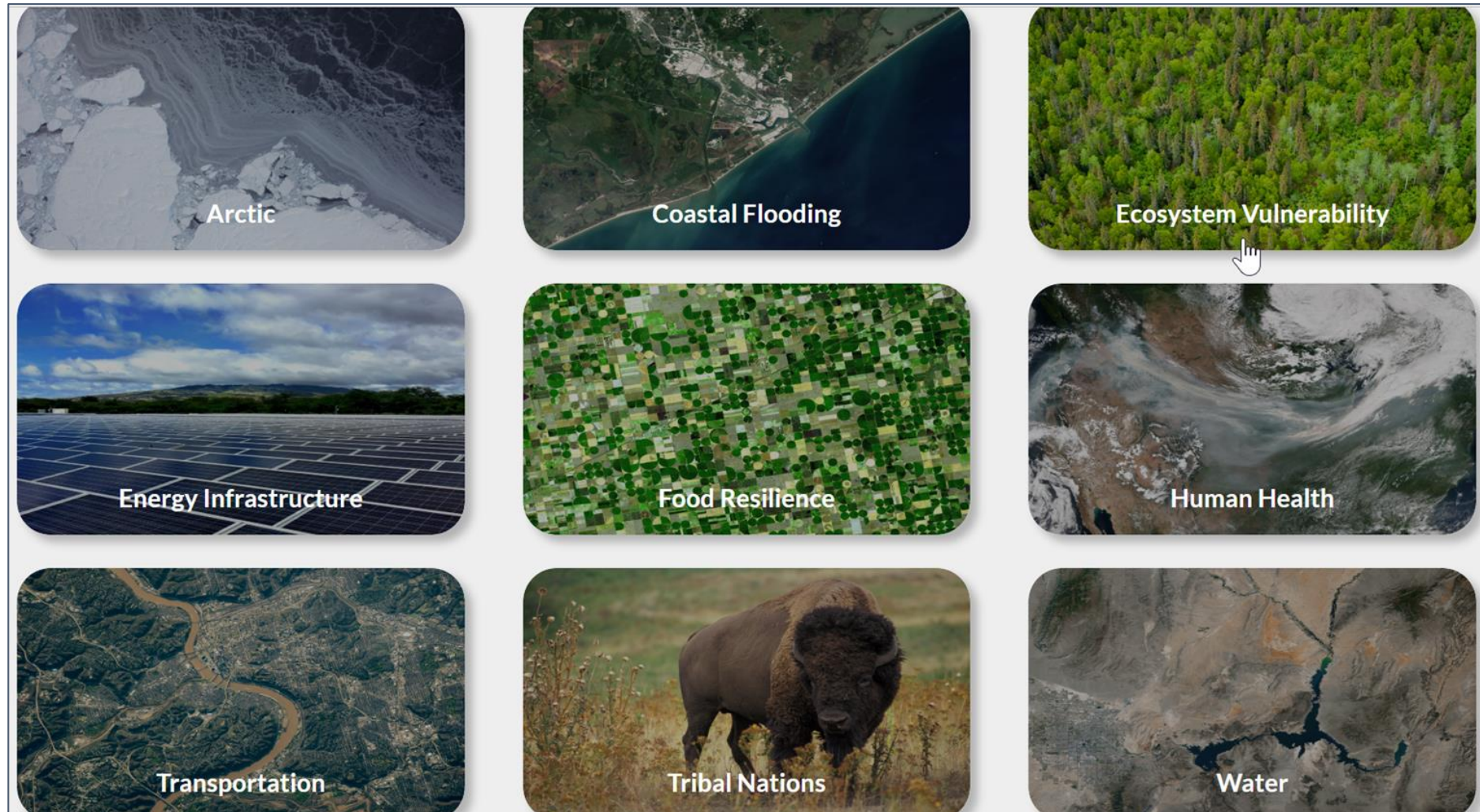
Home page displays the 9 CDI thematic areas

Resilience Community Website: Ecosystem Vulnerability Theme

Each theme has a landing page that links to further resources including tools, web content, maps, datasets & services

Resilience Community Website: Ecosystem Vulnerability Theme Services

Clicking on 'Services' takes the user to a list of Resilience Community Services tagged with the 'Ecosystem Vulnerability' theme

Service Example

Lessons Learned | Best Practices

(1) Resources to consider for creating/maintaining a GeoPlatform Community:

Role	Description
Data Analysts/ Curators (2x)	● Maintains objects in GeoPlatform (makes sure datasets are up to date, ensures correct tagging of objects, metadata up to standard, etc.) ● WordPress maintenance (fixing hyperlinks, etc.)
Subject Matter Expert (SME) (optional)	● Serves as the authority for determining community website content ○ In the case of the Resilience Community, SME's decided which datasets to include in the CDI
Web Developer (optional)	● May be beneficial if a high level of customization is desired in WordPress

Lessons Learned | Best Practices

(2) Active participation in GeoPlatform updates

- GeoPlatform.gov undergoes quarterly updates

  - new widgets, plug-ins, features, bug fixes

- Important to participate in beta testing before each release to make sure your community content is working properly

  - Important to understand plugins used by your site in case they are affected by updates

  - Important to understand how new tools/plug-ins work so they can be integrated into your site

- GeoPlatform solicits feedback on new features & updates

(3) Utilize the FGDC Service Status Checker

GeoPlatform has a feature called the Performance Dashboard, that tests all of the services registered to GeoPlatform.

- Driven by the FGDC Service Status Checker; a web service used to test and validate geospatial web map services.

Currently unable to subset Resilience Community services in the Performance Dashboard

- **Solution: Recommend registering a service feed directly with the FGDC Status Checker**

- Create an ATOM feed with a master list of all of the services in your community
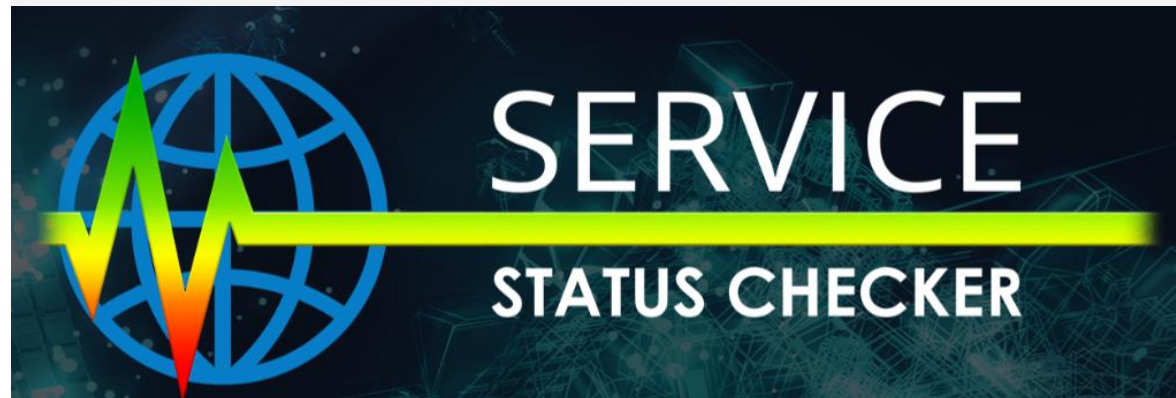
(4) Maintain an offline inventory of objects in your community

- GeoPlatform users/admins can update datasets in Object Editor
  - Tags can get accidentally dropped in the process

- GeoPlatform users may add community specific tags to objects outside of the community
  - E.g. Users can tag any object as 'Resilience Community' - this needs to be monitored

- Currently working with GeoPlatform to implement additional restrictions & improve tag maintenance

The offline inventory can be referred to in case content gets altered.

Thank you!

Questions?

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